SOME NEW RHYNCHOPHORA FROM EASTERN NORTH AMERICA WITH ADDITIONS TO AND CORRECTIONS OF THE "RHYNCHOPHORA OF NORTHEASTERN AMERICA."

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Since the "Rhynchophora of Northeastern America," prepared by Chas. W. Leng and myself, was issued in September, 1916, a number of undescribed forms have been collected by me or sent in by others. More extended collecting in southern Florida, especially in the Cape Sable and Lake Okeechobee regions, have furnished additional notes on the distribution and habits of a number of species included in the work. I have therefore prepared this paper, which includes descriptions of new forms from the region covered by us, mention of those described since 1916 by other authors, notes on habits and extension of range, and corrections of a number of errors which were bound to occur in the text of such a work as our "Rhynchophora."

The errors mentioned were, for the most part, made known to me by Col. Wirt Robinson of West Point, N. Y., who, while making extended use of the work in naming and placing his species, made a manuscript list of such errors or suggestions for improvement as were found or occurred to him. This list he kindly forwarded to me.

In the pages which follow the number before each species is that of the species in the Rhynchophora. Where a page is cited in parenthesis it is also that of the Rhynchophora.

I have found in recent years that many species of Rhynchophora occurring in Florida hibernate in the adult stage in dead branches, bunches of dead twigs, leaves or Spanish moss, dead air plants, etc., in or about the edges of hammocks. By beating these various objects above an open umbrella numerous species supposed to be rare have been found to be frequent or even common in numbers. Examples of such species are *Hormops abducens* Lec., *Erodiscus tinamus* Lec. and *Lembodes solitarius* Boh. At Cape Sable in late February more than 40 species of Rhynchophora were thus found hibernating.

As that portion of the "Rhynchophora" devoted to the family Scolytidæ was prepared by Mr. Leng, I have not covered it in this paper. A number of additional Scolytids have been taken by me in Florida, but as yet I have not found time for their determination.

6. **Ormiscus saltator** Lec.—This small Anthribid evidently occurs throughout Florida and on the keys. It was beaten from dead branches at Cape Sable and Key West.

11. **Toxotropis floridanus** Leng.—This prettily marked species was described (p. 28) from two specimens taken at Enterprise, Fla. I have since taken a dozen or more by sweeping ferns in a dense wet hammock at Dunedin.

24. **Toxonotus fascicularis** Schön.—I found this a common species at Cape Sable on the dead branches of the saffron plum, *Bumelia angustifolia* Nutt. About Dunedin it hibernates in bunches of Spanish moss.

41. **Euxenus piceus** Lec.—A single specimen of this curious little Anthribid was found crawling on the beach at Cape Sable. The color ranges from dark reddish-brown to deep shining black.

42. **Rhinomacer pilosus** Lec.—It was stated (p. 49) that the members of the subfamily Rhinomacerinæ "occur on pine and other coniferous trees." About Dunedin I find this species frequent during the winter months in the seed pods of a low shrubby ericad, *Xolisma fruticosa* Michx.

59. **Rhynchites elusus** Blatch.—This species was taken at Lakeland Feb. 11 by beating Spanish moss. About Dunedin a half dozen or so are taken each season in March by sweeping the flowers of the low myrtle huckleberry, *Vaccinium myrsinites* Lam. It also occurs at light in April.

83. **Apion tenuiforme** Fall.—This species was originally described from specimens in the Schwarz collection from Florida, without more definite locality. A single specimen from Dunedin, Nov. 8, is at hand.

92. **Apion walshii** Smith.—A single specimen is at hand taken in Porter Co., Indiana, May 9. This is the first record from that State.

96. **Apion importunum** Fall.—Specimens, so named for me by Mr. Fall, were taken by sweeping in Skinner's Hammock near Dunedin. It was described from "Georgia and Florida," without more definite locality, though Fall stated that it is probable that his types came from "extreme southeastern Florida and adjacent region."

122. **Tachygonus lecontei** Gyll.—In addition to the localities mentioned (p. 94) this curious little weevil has been taken at Dunedin and Lakeland, Fla., Jan. 9, Feb. 21, so that it passes the winter in that region in the adult stage.

127. **Epicærus formidolosus** Boh.—Several specimens have been taken at Dunedin between December 9 and March 15 by sweeping low shrubs in dry, sandy open woods.

140. **Paragraphus setosus** Blatch.—Both genus and species of this handsome Otiorhynchid were founded on a unique. Eight specimens have since been taken, all within one hundred yards of the type locality on Hog Island, not more than three on any one day. It occurs in company with four other weevils, *Agraphus bellicus* Say, *Tanymecus lacœna* Herbst., *Baris splendens* Casey and *Chalcodermus inœqualis* Horn, in the axils of the leaves of a yellow flowered thistle *Carduus spinossissimus* Walt. By cutting the thistles off at the ground, then holding them over a rubber blanket and whacking the leaves from the stem with a hatchet or trowel, the weevils will be found "playing possum" in the debris left on the blanket. One hundred thistles will usually yield about 50 Barids, 30 of the *A. bellicus,* ten of the *Tanymecus,* two or three of the *Chalcodermus* and perhaps one of the *Paragraphus.* A hurricane and tidal wave swept the island in September, 1918, and neither thistle nor weevil could be found there the ensuing winter.

151. **Pachnæus opalus** Oliv.—Frequent at Long Key and Key West, Feb. 27 to March 3, on the foliage of a large purple morning-glory and that of various shrubs. Occurs in company with *Artipus floridanus* Horn, the latter being the most common Rhynchophorid found at Key West in early March.

207. **Listronotus floridensis** Blatch.—This species was found in numbers near Moore Haven, Fla., March 2. It occurred on the flowers of an arrow-head, *Sagittaria,* which was growing in the low swales left by the receding of Lake Okeechobee at that point. Fresh specimens were more densely and conspicuously scaly than any of the allied species.

217. **Hyperodes crytops** Dietz.—This species also occurs in some numbers on the flowers of *Sagittaria* and allied plants about Dunedin and Moore Haven.

Hyperodes poseyensis new species.

Oblong-oval, rather robust. Dark reddish-brown densely clothed with large gray scales, those of beak, occiput and femora with a metallic sheen; sides of thorax with a rather broad stripe of larger gray scales, these also covering the humeri and gradually evanescent on sides of elytra; disk of elytra with scattered vague fuscous blotches formed by larger scales. Beak slender, subcylindrical, distinctly longer than thorax, but feebly tapering, its sculpture concealed by the large metallic gray scales; antennal grooves deep, narrow, sharply defined. Antennæ slender, scape not reaching eye, joints one and two of funicle slender, subequal, club small, oval. Thorax about as wide as long, sides broadly rounded, front margin wider than base, sculpture concealed by the scales, from between which arise numerous slender, pointed inclined black bristles. Elytra at base strongly emarginate, three-fifths wider than thorax, humeri prominent; sides straight and parallel to middle, thence strongly converging to the narrowly rounded apex; disk with sculpture concealed; intervals wide, feebly convex, each with a single row of slender inclined brownish bristles. First and second ventral segments coarsely and densely punctate, 3–5 finely and more sparsely punctate, the fifth without sexual impressions. Length 3.8 mm.

Posey County, Ind., April 27. Two specimens taken from beneath logs. Belongs under *dd* of Group II (p. 168) of the Rhynchophora, but size larger, beak longer, thorax relatively narrower and scales much more metallic in hue than in *montanus*. The bristly hairs of both thorax and elytra are slender, not at all clavate. By Dietz's key it runs to his Hyperodes group, which contains only Pacific slope species.

Hyperodes lodingi new species.

Elongate-oblong, slender, subdepressed. Reddish-brown; occiput, tip of beak, middle and sides of thorax and middle of femora darker; elytra with a submarginal stripe and a more or less broken subsutural one blackish. Beak stout, slightly shorter than thorax, subdepressed, feebly bicarinate, densely reticulate-punctate; upper margin of antennal grooves directed toward middle of eyes. Antennæ with first and second funicular joints slender, subequal, scape reaching front margin of eyes; club large, stout, elongate-oval. Thorax subcylindrical, about as broad as long, densely and coarsely cribrately punctate; surface with a row of small, oval, silvery yellowish scales arranged transversely each side of disk and each puncture of middle and sides with a curved hair-like scale; ocular lobes covering one-half the eyes in repose. Elytra at base one-half wider than thorax, about three times as long as wide; sides subparallel to beyond middle, thence converging gradually to a conjointly rounded apex; surface without setæ or pubescence, evenly not densely clothed

with very small oval silvery gray scales; disk with rows of close-set rather coarse punctures, these much wider than the narrow feebly convex intervals. Abdomen rather coarsely and closely punctate, each puncture enclosing a very small gray scale. Length, 3.5–3.8 mm.

Named in honor of H. P. Loding of Mobile, Ala., who kindly gave me four specimens taken near Mobile, August 1. He states (Ms.) that: "They were found after a cloud-burst on grasses and other plants on the site of an old dried-up pond, where they, with many other things, were trying to save themselves from the flood." This species belongs under *aa* of Group III (p. 171) of the Rhynchophora. It differs from the other three species there included in being wholly without setæ. The scales are much smaller than in any of the others and are so arranged that the surface hue is plainly visible. Two of them, smaller than the others, are probably males, though no sexual distinctions are evident.

256. **Hormops abducens** Lec.—A colony of 60 or more specimens of this rare beetle was found in Skinner's Hammock near Dunedin in February, 1918. It was in a large bunch of dead twigs and leaves in a tangle of vines about ten feet above the ground.[1] A single specimen was found about one-half mile distant in the same hammock in 1919. Leng, in the same number of the Journal cited, p. 209, records it also from Waco, Texas.

Smicronyx halophilus new species.

Elongate-oval, convex. Dull red; head, antennæ, suture of elytra and tarsi darker. Sides of thorax densely clothed with large, oval, grayish-white scales; elytra with basal fifth, humeri, and a large oblique patch on median third thickly clothed, and the three outer intervals and apex more thinly clothed, with similar scales; entire under surface thickly clothed with circular, ocellate, white scales. Beak rather stout, of nearly equal size throughout, feebly curved, scarcely as long as thorax, male, as head and thorax, female, thickly reticulate-punctate. Second and third joints of funicle subequal, together scarcely as long as first. Thorax slightly longer than wide, narrowed in front and constricted near apex, sides broadly rounded, disk densely and finely punctate. Elytra oval, conjointly nearly two-thirds wider than base of thorax, humeri prominent; sides parallel to beyond middle, thence gradually curved and convergent to the narrowly rounded apex; striæ narrow, minutely punctate; intervals flat, three times as wide as striæ, minutely rugose, without visible punctures or setæ. Under surface very finely and thickly punctate, the sculpture hidden by scales. Length, 2.3–2.7 mm.

[1] See Journ. N. Y. Ent. Soc., XXVI, 1918, pp. 155–161.

Described from 11 specimens swept from low herbage along the margins of tidal lagoons at Key West, March 1 to 3. The color varies somewhat, some specimens having the disk of thorax, beak and basal half of elytra blackish like the head. The scales are easily abraded, in one or two specimens being almost absent. Belongs under *a* of Group III (p. 216). Differs from *S. congestus*, its nearest ally, in its shorter, relatively stouter beak, its longer, narrower thorax, and especially in the shape and arrangement of its scaly vestiture.

304. **Smicronyx apionides** Casey.—A single specimen of this very distinct and prettily marked species was swept from herbage in a low moist woodland in Knox County, Ind., Oct. 5, 1917. The first record for the State.

Bagous pictus new species.

Elongate-oblong. Reddish-brown, densely clothed with grayish-brown and snow-white scales, the latter forming a narrow median and a broad stripe each side of thorax, the lateral stripes forking in front of middle; the white scales on elytra covering the humeri and fifth, sixth and seventh intervals to beyond the middle; basal portion of third interval and a common spot on second and third at apical third also white. Beak stout, as long as thorax, strongly deflected, densely scaly. Head without frontal fovea. Thorax nearly as broad as long, constricted near apex, densely granulate. Elytra oval, one-third wider than thorax, humeri oblique; intervals feebly convex, without tubercles on or near the declivity. Length, 2.8 mm.

Two specimens taken at Cape Sable, Feb. 24, by sweeping low herbage along the edge of the beach. Allied to *obliquus* Lec., but stouter, without declivity tubercle and with a different and very striking arrangement of the white scales on elytra.

360. **Paragoges minimus** Blatch.—A half dozen specimens of this minute Tychiid, which was described from a unique from Ft. Myers, were taken at Key West, March 3. They were swept from low herbage near the old fort.

361. **Erodiscus tinamus** Lec.—This was a common species at Cape Sable where it occurred on dead branches in the hammocks, especially on those of the saffron plum, or seaside oak, *Bumelia angustifolia* Nutt.

367. **Otidocephalus dichrous** Lec.—This peculiarly colored species has been taken on several occasions in June at porch light near Dunedin; also by beating the foliage of bay in a dense hammock.

Balaninus parvidens Chitt.[2]—A male of what Dr. F. H. Chittenden pronounces this species was taken at light at Dunedin, Fla., Sept. 20, and sent to me. This form was mentioned (p. 272) but not described. The surface is very evenly clothed with a mixture of grayish and pale brown scales. These are so arranged that no color pattern is evident. The beak is slightly shorter than elytra. Length of body 6.2 mm. Whether it is a variety or synonym of *B. humeralis* Casey can only be told by direct comparison with the type and a better knowledge of the food habits of both.

A female of another species, taken at Dunedin, October 31, Dr. Chittenden states is probably his *B. victoriensis*, described[3] from Victoria and other points in Texas.

Dr. Chittenden protests (Ms.) against the placing (p. 267) of his *B. orthorhynchus*[4] as a synonym of *B. rectus* Say, and has sent me a female of the former bred from *Quercus rubra* for comparison. While the color and general facies of his specimes is the same as in *rectus*, the beak is one-fourth shorter and distinctly less curved in its apical fifth. The femoral tooth is much smaller, more acutely produced, with entering angle rounded, not obtuse and oblique as in *rectus*. These characters indicate specific differences where only a small series is present for examination. Whether they will hold throughout a large series can only be told by future study of the two forms.

414. **Anthonomus scutellaris** Lec.—The southern range of this species was given (p. 288) as "Georgia to Texas." It has since been beaten on several occasions in March from the flowers of a clump of cultivated plum trees near Dunedin, Fla.

415. **Anthonomus elegans** Lec.—This handsome submaritime species was recorded (p. 289) only from the east coast of Florida. A half dozen were taken at Cape Sable from the buttonwood, *Conocarpus erecta* L. Two have also been taken on the same shrub on Hog Island, opposite Dunedin.

421. **Anthonomus costulatus** Suffr.—This is a common species along the coasts and keys of southern Florida on the buttonwood and the mangrove, *Rhizophora mangle* L.

[2] Proc. Ent. Soc. Wash., X, 1908, 24.

[3] Bull. 44, U. S. Div. Ent., 1904, 31.

[4] Proc. Ent. Soc. Wash., X, 1908, 26.

424. **Anthonomus grandis** Boh.—This destructive species has not yet done much damage in Florida. A specimen from Lake City is at hand. It was not known from that State in 1916.

441. **Anthonomus uniformis** Blatch.—A number of examples of this species have been taken at Dunedin and Lakeland, Fla., in February and March. It occurs only in the vicinity of ponds and lakes on huckleberry and other low shrubs.

446. **Anthonomus unicus** Blatch.—Since 1916 this species has been collected at Lakeland and Okeechobee City, Fla. It hibernates in bunches of Spanish moss and in spring occurs on foliage about the borders of hammocks.

449. **Anthonomus varipes** Duval.—This well marked weevil has been taken in small numbers at both Cape Sable and Key West. It was beaten from foliage of saffron plum and was also found beneath logs on the beach.

Baris australis new species.

Elongate-oblong; moderately slender. Black, strongly shining with a purplish or bronze metallic lustre. Beak two-thirds the length of thorax, stout, feebly curved, very finely and sparsely punctate. Head alutaceous, minutely and very sparsely punctate. Thorax one-fourth wider than long, sides straight for three-fourths their length, then rounded to apex; disk strongly convex, coarsely punctate, the punctures separated by their own diameters, those near apex gradually smaller. Elytra elongate-oval, as wide at base as thorax, sides straight and parallel to apical fifth, thence rounded into apex; striæ fine, deep, impunctate; intervals wide, flat, each with a single row of widely spaced, rather fine punctures, those of the third interval slightly confused. Sterna coarsely and closely, abdomen finely and sparsely, punctate; third and fourth abdominal segments each with only a single post-median cross-row of small punctures. Length, 2.8–3 mm.

Dunedin and Lakeland, Fla.; Billy's Island, Ga.; Feb. 1 to June. Swept from huckleberry and other low shrubs along the margins of ponds. Allied to *B. hyperion* Casey, but smaller, relatively broader, the punctures of thorax coarser, much less numerous. Specimens were submitted to Col. Casey who stated that they were unknown to him.

Pseudobaris connectans new species.

Elongate-oval, robust. Black, shining; femora piceous; antennæ, tibiæ and tarsi reddish-brown. Beak nearly as long as head and thorax together, stout,

strongly curved, both it and head finely and sparsely punctate. Thorax about as wide as long, sides parallel from base to middle, then gradually converging to the feebly constricted apex; disk with a narrow, smooth median line, coarsely, evenly and closely punctate, the punctures ocellate, separated by about two-thirds their own diameters. Elytra conjointly oval, as wide at base as thorax; striæ fine, deep; intervals longitudinally concave, each with a single row of rather large, well separated punctures. Pygidium, under surface and femora coarsely and densely punctate. Tarsal claws connate for three-fourths their length. Prosternal groove distinct but wide and rather shallow; front and middle coxæ widely separated. Length, 3.3 mm.

Described from one specimen taken at Plummer's Island, Md., Sept. 10. During the preparation of the Barini portion of the Rhynchophora the generic placement of this specimen was the subject of quite a correspondence between Col. Casey and myself. Hoping that additional specimens might turn up it was not included in that work. It seems to form a sort of connecting link between *Baris* and *Pseudobaris*. In general facies it resembles the former group, but the widely separated front coxæ, long beak and pubescent basal joint of antennal club preclude its being placed in *Baris*. On the other hand the prosternal groove is not abrupt and narrow as in typical *Pseudobaris*. It perhaps should serve as the type of a new genus.

598 (11,177). **Nicentrus grossulus** Casey, Ann. N. Y. Acad. Sci., VII, 1893, 599.—This name and citation should replace that of *Nicentrus canus* Lec. (p. 392), Casey having wrongly identified[5] specimens from Enterprise and Haw Creek, Fla., as Leconte's *Centrinus canus*. His correction and renaming of the species was overlooked by us. A specimen of *N. grossulus* was swept from sea blite, *Batis maritima* L., on Hog Island opposite Dunedin on March 26. It is more oblong and slender than *Limnobaris cana* Lec., is 4.5 mm. in length and densely clothed above with elongate-oval brownish-yellow scales; those on thorax arranged transversely. Known only from Enterprise, Haw Creek and Dunedin, Fla.

Eisonyx Lec. 1880, 216.

This genus is related to *Microholus* Lec. and *Oömorphidius* Casey, but differs from both in having the body rhomboidal; beak thick, shorter than thorax, feebly curved; middle and hind tibiæ very stout.

[5] Ann. N. Y. Acad. Sci., VI, 1892, 614.

coarsely pubescent; tarsal claws single. Three species are known, two from Texas and Missouri, the other

Eisonyx (*Eumononycha*) **picipes** Pierce, Proc. U. S. Nat. Mus., LI, 1916, 472.

Rhomboidal, convex, widest between basal third and fourth of elytra. Black, feebly shining, sparsely clothed with very small patches of linear scales on base of beak, sides of thorax and bases of third and seventh elytral intervals. Beak densely, deeply and finely punctate, separated from head by a transverse, sharply defined groove. Thorax as long as wide, apex half as wide as base, disk deeply, strongly and irregularly punctate with median and discal smooth areas. Greatest width of elytra about one-half wider than that of thorax; striæ strong at base, gradually evanescent; punctuation extremely fine and sparse. Abdomen finely and sparsely punctate, the first and second segments connate at middle. Length, 2.5–3.7 mm.

Described by Pierce from several specimens taken at Nashville, Tenn., in August and September, some of them from the roots of an aster. Belongs to Casey's genus *Eumononycha*[6] which Pierce, loc. cit., reduces to a subgenus of *Eisonyx*.

Limnobaris cana Lec., 1876, 421.

Black, shining, antennæ and legs dull red; upper surface rather thickly clothed with small oval gray scales. Beak rather stout, shorter than thorax, deeply, densely lineato-punctate, male, as long as head and thorax, slender, slightly curved, polished, punctured only at base, female. Thorax scarcely as long as wide, densely and rather coarsely punctate. Elytral striæ deep, intervals flat, rugosely punctate, the scales not arranged in rows. Fifth ventral one-half longer than fourth. Length, 4.7–5 mm.

This name and description should be inserted above Number 617, p. 402. The species is known from St. Augustine, Tybee Beach and Enterprise, Fla., and Santo Tomas, Texas.

633. **Catapastus albonotatus** Linell.—A number of specimens of this little Barid were taken by beating in the midst of the dense hammocks at Cape Sable, Fla., Feb. 21 to 23. It is the smallest member of the genus.

Barilepton robusta new species.

Elongate, robust; subcylindrical. Black, shining; legs and antennæ dull reddish-brown; above evenly and densely clothed with slate-gray scales, those on thorax lanceolate-triangular and arranged transversely, their margins contiguous; those on elytra elongate-oval, smaller, irregularly overlapping; under

[6] Ann. N. Y. Acad. Sci., VII, 1893, 601.

surface thickly clothed with still smaller, oval, silver-gray scales. Beak stout, compressed, scarcely half as long as thorax, basal half coarsely granulate-punctate, gradually smoother towards tip. Head alutaceous, very finely and sparsely punctate. Thorax one-half longer than wide, sides parallel from base to apical third, thence converging to the strongly constricted apex, the latter one-third or more narrower than base; sculpture hidden, the median smooth line narrow, subcarinate, almost entire. Elytra as wide and three times longer than thorax, sides parallel from base to apical fifth, then feebly converging into the broadly rounded tips; striæ fine, shallow; intervals flat, alutaceous, rather coarsely, irregularly punctate. Single tarsal claw stout, as long as third tarsal joint, feebly cleft at tip. Length, 6.7–8 mm.

This handsome weevil was first taken from the margin of a lake three miles east of Lakeland, Fla., Feb. 16, 1919. Four specimens were secured by cutting off close to the ground clumps of a coarse saw-grass and shaking them over a rubber blanket. With the weevils were found a half dozen specimens of a rare Buprestid beetle, *Taphrocerus puncticollis* Schz. These two beetles, which are quite similar in form, were evidently hibernating between the bases of the leaves and stems of the saw-grass. On March 23, nine more specimens of the weevil were found in clumps of a similar saw-grass by the side of Lake Butler, near Tarpon Springs, 50 miles northwest of Lakeland. This species is twice or more larger than our other eastern members of the genus *Barilepton*. Its dense scaly slate-gray vestiture is also very distinctive.

710. **Perigaster obscura** Lec.—It is very doubtful whether this is more than a southern race or variety of *P. cretura* Herbst. Specimens have been taken about Dunedin which appear to be intermediate between the two.

The paucity of species of the tribe Ceutorhynchini in Florida is remarkable. During seven winters' collecting I have taken but five species in the State, viz., *Craponius inæqualis* Say, *Auletes nebulosus* Lec., *Ceutorhynchus floridanus* Leng, *Perigaster cretura* Herbst. and *P. obscura* Lec. Of the 66 species of the tribe recognized in the Rhynchophora 34 were recorded from Indiana and only eight from Florida, three being common to both states.

697. **Ceutorhynchus transversus** Blatch.—This was described from a unique from Starke County, Ind. Three additional specimens were taken May 5, 1918, by sweeping herbage in a low moist spot close to White River, five miles northwest of Indianapolis.

733. **Conotrachelus seniculus** Lec. This is a very common species in the Okeechobee and Cape Sable regions in early spring. It occurs on low vegetation and is also attracted to light.

737. **Conotrachelus serpentinus** Boh.—This has been taken in some numbers about Dunedin and Lakeland, Fla., where it occurs in hammocks on the foliage of the red bay, *Persea borbonia* L.

738. **Conotrachelus belfragei** Lec.—Three additional examples of this prettily marked weevil have been taken since 1916, one at Dunedin, March 14, by beating sea grape, *Coccolobis uvifera* (L.) on Hog Island, the other two at Cape Sable on *Conocarpus erecta* L. It was hitherto known only from Eustis, Fla., and Texas.

——. **Conotrachelus maritimus** Blatch.—This species was described[7] from nine specimens taken near Dunedin in February from beneath debris within 50 feet of the beach of Clearwater Bay. The species belongs in Group III, p. 476, of the Rhynchophora. Only two or three additional specimens have been since obtained.

742. **Conotrachelus floridanus** Fall.—Frequent at Cape Sable in late February, where it occurred on the dead branches and foliage of the saffron plum, *Bumelia angustifolia* Nutt. This common shrub, known to the natives of the Cape as "seaside oak," grows in dense clumps along the edges of the hammocks and was productive of more species of Coleoptera than any other half dozen forms of vegetation in that region. One of the specimens of *C. floridanus* was 6.3 mm. in length.

——. **Conotrachelus biscayensis** Fall, Can. Ent., XLIX, 1917, 385.—This species was described from a unique female taken by Hubbard and Schwarz at Biscayne, Fla. Fall states that by Le Conte's table it would fall near *geminatus,* but more nearly resembles *floridanus* from which it differs in its less elongate (4.1 mm.) body and very differently sculptured ventral segments, the first being coarsely and sparsely punctate, the others smooth and polished at middle, punctate only at sides.

——. **Conotrachelus obesus** Fall, loc. cit., p. 386.—Described from a single Georgia specimen, closely allied to *anaglypticus,* but larger (5 mm.), with thorax wider and elytral costæ 3, 5, 7 and 9 acutely carinate, the carinæ of the third and fifth abruptly interrupted before the middle.

[7] Can. Ent., XLIX, 1917, 278.

748. **Conotrachelus coronatus** Lec.—A single specimen was taken near Lakeland, Feb. 16, by beating clumps of saw-grass over a rubber blanket. It is notable for its small size (3 mm.), the tubercles of thorax and elytra, and by having the beak abruptly obliquely declivent at apical third. Known heretofore only from two specimens taken by Schwarz at Enterprise, Fla.

761. **Chalcodermus inæquicollis** Horn.—A dozen or more specimens have been taken, all from the leaf axils of a thistle on Hog Island.

766. **Tyloderma maculata** Blatch.—Described from a unique taken at Little River, Fla. Two additional specimens have been taken, one near Moore Haven, Fla., March 3, the other from Hog Island, by sweeping *Batis maritima* L., March 26.

768. **Tyloderma variegata** Horn.—Taken since 1916 at La Belle, Palm Beach Canal, Lakeland and Dunedin, Fla., by sweeping ferns in dense hammocks.

—. **Tyloderma lævicollis** Blatch.—This species was described[8] from two specimens taken March 4 by beating at the point where the Palm Beach Canal leaves the east shore of Lake Okeechobee. Allied to *T. variegata* Horn, but much smaller. The elongate slender form, almost smooth thorax and deep subapical striæ of elytra readily separate this from any known species.

Tyloderma minima new species.

Oblong-oval. Black, more or less bronzed, strongly shining; legs, and rarely the entire surface, dark reddish-brown. Beak stout, one-third shorter than thorax, alutaceous, finely and very sparsely punctate. Head smooth but with a shallow oval fovea. Thorax oval, its front margin projected forward, partly covering the head, very finely alutaceous, usually absolutely smooth, rarely with a few vague, shallow punctures on front margin. Elytra elongate-oval, one-third wider at base than thorax, disk with rows of very faint punctures, these evanescent behind the middle, the subsutural row coarser and nearly entire. Under surface minutely alutaceous, impunctate. Length, 2.3–2.8 mm.

Ormond, Moore Haven, Bassenger, Sarasota and Dunedin, Fla., Jan. 11 to April 14. This is the small form mentioned (p. 494) in the notes under *T. punctata* Casey. It occurs abundantly in southern Florida beneath cover along the margins of fresh water, mating in February and March. *T. punctata*, which also occurs in small num-

[8] Can. Ent., LI, 1919, 99.

bers in Florida, is always larger, not less than 3.5 mm., with head and subapical constriction of thorax distinctly punctured, and the punctures of elytra, especially along the flanks, very coarse. No intermediate forms have been found.

775. **Lembodes solitarius** Boh.—This curious Cryptorhynchid, usually considered rare, I found quite frequent about Cape Sable, 30 or more specimens having been taken, mostly by beating the dead limbs of *Bumelia angustifolia* Nutt.

780. **Pseudomus inflatus** Lec.—Common at Key West on the foliage of the sea-grape, *Coccolobis uvifera* L.

781. **Pseudomus sedentarius** Say.—A single example was taken at Lakeland, Fla., Feb. 13, by beating bunches of Spanish moss. Known heretofore only from Ormond and Enterprise, Fla.

784. **Acalles granosus** Lec.—Two specimens of this handsome and distinctively marked weevil were taken Feb. 17, beneath chunks of saw-palmetto stems along the edge of the beach of Clearwater Bay, one mile north of Dunedin. Hitherto known only from the east coast of that State.

791. **Acalles minimus** Blatch.—Several examples of this pygmy of the genus were taken at Cape Sable by beating in dense hammocks.

Acalles sablensis new species.

Oval, robust. Dark reddish-brown, above densely clothed with dirty gray, white and fuscous scales; the white ones forming a vague stripe each side and a quadrate spot at middle of base of thorax, and a broad common V-shaped blotch on the declivity of elytra; this bordered in front by an irregular cross band of fuscous scales, these also forming several scattered blotches on disk of thorax and basal half of elytra and a broad common one on middle of declivity. Under surface thickly clothed with round white scales. Beak broad, flattened, subspatulate, about as long as thorax, naked except at base, finely and sparsely punctate, carinate on basal third. Thorax slightly broader than long, strongly narrowed and broadly constricted in front of middle, sides rounded. Sculpture concealed, disk with numerous scattered, very short forward-inclined setæ. Elytra oval, one-fourth wider at base than thorax, sides parallel to apical third, thence gradually converging to the conjointly rounded apex; sculpture of disk concealed; intervals convex, each with a single row of short white, backward-inclined bristles. Length, 3–5 mm.

Two specimens, differing much in size but otherwise very similar, were collected at Cape Sable, Fla., Feb. 21 to 23. They were taken about six miles apart by beating dead branches in dense hammocks.

No sexual differences are indicated. The larger one is duller colored, having only a trace of the basal white spot of thorax and with the median fuscous spot of elytral declivity much wider.

Pseudoacalles maculatus new species.

Broadly oval, very robust. Blackish-piceous, antennæ and tarsi reddish-brown; thorax sparsely, elytra densely, clothed with dull clay-yellow and white scales, the latter forming a narrow median line and some small spots on thorax and numerous scattered spots on each elytron. Under surface covered with larger similar scales. Beak stout, subdepressed, as long as thorax, coarsely thickly punctate, striate at sides, carinate above on basal half. Head coarsely punctate. Thorax nearly twice as wide as long, sides strongly rounded, apex distinctly constricted, disk very coarsely, densely, more or less confluently punctate, each puncture closed by a round scale. Elytra at base scarcely as wide as middle of thorax, sides feebly curved from humeri to apical third, then strongly converging to the rather narrowly rounded apex; striæ fine; intervals broad, flat, their sculpture concealed. Second and fifth ventral segments subequal in length, each more than twice as long as the third and fourth which are also subequal. Length, 4.2 mm.

Described from a single specimen taken February 25, by sweeping at Cape Sable. Larger and much more robust than *P. nuchalis* Lec., with thorax much wider, its apex more suddenly constricted. The elytra are prettily mottled and without setæ, but each interval of the declivity has a median row of slightly larger, more projecting pale scales.

803. **Cryptorhynchus lapathi** Linn.—Taken in some numbers on willow near Indianapolis in June, 1917. The first record for the State.

805. **Cryptorhynchus helvus** Lec.—A single specimen is at hand from Gainesville, Fla., and another is in the Leng collection without locality label. These are the only ones, other than the type, so far known.

810. **Cryptorhynchus apiculatus** Gyll.—A few specimens are taken each spring near Dunedin by beating dead branches in wet hammocks. One was also taken near Okeechobee City, March 6.

812. **Cryptorhynchus schwarzi** Blatch.—Four specimens have been taken by me since 1916, one at Moore Haven, another at Cape Sable, from between grass roots close to the beach, and two by beating buttonwood, *Conocarpus erecta* L., on Hog Island, opposite Dunedin, March 8.

818. **Anchonus duryi** Blatch.—Taken in company with *Conotrachelus maritimus* Bl. from beneath chunks along the bay front at Dunedin.

822. **Dryotribus mimeticus** Horn.—Frequent at Cape Sable in company with *Gononotus angulicollis* Suffr. beneath logs along the beach, the latter species occurring by hundreds.

839. **Caulophilus latinasus** Say.—Found hibernating in large bunches of Spanish moss along the borders of lakes near Lakeland, Fla., a dozen or more specimens having been taken in February.

879. **Sphenophorus chittendeni** Blatch.—Three additional specimens of this well marked species have come to hand since 1916, two from Dunedin, the type locality, where they were found crawling on the sidewalk, the other from Billy's Island, Ga. Chittenden reports another in his collection from Eaugallis, Fla. The males are distinctly the smaller and more slender and the smooth median area of thorax varies much in form and size.

—. **Sphenophorus deficiens** Chitt. Mss.—One specimen, to which Dr. Chittenden gives this name, was taken by me from beneath a log on the ocean beach at Ormond, Fla., March 15. His type is from Crescent City, Fla. It is closely related to *zeæ* Walsh, but is larger, with beak stouter at base and the lateral vittæ of thorax almost obliterated.

Sphenophorus omissus new species.

More slender than its nearest ally, *S. zeæ* Walsh. Black, feebly shining; antennæ and tarsi dark reddish-brown. Beak slender, one-half as long as thorax, strongly compressed beyond the antennal fossæ, both it and head minutely and sparsely punctate, without basal or frontal groove. Thorax about one-third-longer than wide, sides parallel from base to apical third, then rounded to the constricted apex; disk without elevated vittæ; rather finely and irregularly punctate and with a narrow smooth median line on apical half, much more coarsely and sparsely punctate on basal portion. Elytra as wide at base as thorax, widest just behind humeri, the sides thence regularly converging to the conjointly narrowly rounded tips; intervals of disk flat, sinuous, each with a row of minute punctures; striæ with very coarse punctures which cause the sinuosity of the intervals. Pygidium coarsely and shallowly punctate. Abdomen coarsely and sparsely punctate, the first and second segments broadly and shallowly concave in male. Length, 6.3 mm.

Two specimens collected March 31 from beneath log near border of pond at Dunedin, Fla. Belongs under *gg* of Group D (p. 561), but

in general facies and sculpture of elytra resembles *zeæ*; from which it is at once distinguished by the lack of thoracic vittæ.

885a. **Sphenophorus callosus sublævis** Chitt.—Dr. Chittenden (Ms.) states: "This species (*sublævis*) is absolutely not a variety of *callosus*. It is more nearly related to *destructor* Chittn., from which it is separated by its much more irregular elytral surface. I freely admit that the distinction (between *destructor* and *sublævis*) is not very strong, but I find no specimens which intergrade sufficiently to separate *sublævis* as a race of the other." The Vigo County, Ind., specimen recorded (p. 568) he places as *destructor*, the Lake County ones as *sublævis*. He also adds: "*S. destructor* is one of the variable species and I have found it on occasions in the same lot with *callosus* but have no trouble in separating it from that species by the characters of the thorax alone, the middle vitta being irregular, elongate fusiform, with an irregular interrupted, shining black elevated line extending from apex to near base. This finely elevated line is never found in *callosus*." Basing conclusions on small series, Dr. Chittenden is justified in his statement, but if a collection from the entire country were brought together, it would perhaps show that *destructor*, *callosus* and *sublævis* would merge, *sublævis* being the northern race of the other two, the typical form being *callosus*. All three are also closely related to *S. zeæ* Walsh.

889a. **Calandra oryzæ zea-mais** Mots.—Of this form Dr. Chittenden (Ms.) says: "This is an absolute synonym of *oryza*. Years of experience in rearing this insect has convinced me that it is not divisible into distinct species or even races. The size is dependent upon the food supply. Large specimens are usually bred from comparatively soft corn where they have an abundance of food; small ones from small grains of hard rice."

ERRATA AND SUGGESTED CHANGES IN THE TEXT OF THE RHYNCHOPHORA OF NORTHEASTERN AMERICA.

Page.

30. Fourth line under *Eurymycter*.—Change "from above" to "from the sides and below."
47. Fifth line from bottom, insert "bust."
164. Change Roman numeral before *Hyperodes* to V.

268. Col. Robinson suggests that "Basal part of" should be inserted after *a* and *aa* of key, as in all species the distal part of the tooth is at right angles with femur. He also suggests that "pubescence condensed on and behind scutellum" should be omitted from *aa* as this is true of all members of the group.

299. Insert "not" after "color" in *c* of key.

349. Last line in *bb* of first key, cut out "or longer than" and insert "as."

386. Change numbers and name of second species to:
587 (11,168). **Odontocorynus pinguescens** Casey, 1892, 599.

425. Fourteenth line, insert "usually" before "prolonged."

426. Second line of *bb* of key, insert "to cut off the third" after "prolonged."

431. Exchange the second line of the description of *Acanthoscelis curtus* Say for the second line of that of *Acanthoscelis mendicus* Dietz. In making corrections of the two lines the printer put each one back in the wrong place.

440. First line, add "to cut off the third" after "sides."

443. Serial number 694 should be 684.

444. Line beginning with "channel" under No. 686 should take the place of line beginning with "channel" under No. 687, and vice versa.

454. In third line of *cc* of key add "except in *Rhinoncus*."

537. Fifth line under Rhyncolini, change "latter" to "former."

540. Insert (11,227) after the serial number 847.

COLEOPTERA COLLECTED AT WINDSOR, BROOME CO., N. Y., 26 MAY TO 5 JUNE, 1918, WITH NOTES AND DESCRIPTIONS.

By Howard Notman,

Brooklyn, N. Y.

CICINDELIDÆ.

Cicindela sexguttata Fabr. (10)

Cicindela purpurea Oliv. (4)

Cicindela purpurea, var. *graminea* Schp. (1)

Cicindela repanda Dej. (9)